

# Solid Waste UPDATE



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**Get Caught** 

## New Way to Measure Waste Reduction Trend in Kansas

by Bill Bider, Director, Bureau of Waste Management

For many years, the Bureau of Waste Management (BWM) has tried to measure the municipal solid waste (MSW) recycling rate in Kansas based upon a voluntary survey distributed to over 1000 potential recyclers in Kansas. The response rate has been poor (less than half) making it difficult to interpret the data with a high degree of confidence. Even if reporting became mandatory, difficulties would still exist regarding possible double counting of tonnage which is handled by multiple parties and missing information from parties that directly recycle but were not asked to complete the survey.

BWM met with a recycling stakeholders group in McPherson in June to discuss various waste reduction issues including the problems we have had in measuring our statewide MSW recycling rate. Because of the difficulties explained above, the group came up with an alternative performance measure to monitor waste reduction progress and to help set local and statewide goals.

Instead of trying to measure the recycling rate, Kansas will now measure **pounds of MSW landfilled per person per day**. This performance measure can more readily be calculated at the state and local levels because the number of landfills and transfer stations number only about 100 and reporting is mandatory in accordance with their permits issued by the bureau. This measurement method also more directly

relates to our major goal, which is to minimize the amount of waste disposed of in our landfills. This measurement technique adjusts for population growth and considers other important behavioral changes that are missed through calculating recovered tonnage only including reuse and lawn mulching. The measure can also make appropriate adjustment for employment and economic factors as desired.

KDHE has already calculated a per capita MSW landfill rate for the past two years (2004 and 2005) and found that it has remained fairly constant at about **6.1 pounds per person per day**.

Additional data is being  
(continued on page 4)

The average Kansan landfilled 6.1 lb of MSW per day in 2005

## Electronic Waste (E-Waste) Update

by Kent Foerster, Bureau of Waste Management

Is there an E-Waste Recycling Santa Claus(e) that will arise and present us with the solution to our e-waste management challenges? Will responsible businesses step forward and help collect

and recycle e-waste? What effect does EPA's new CRT rule have on e-waste management and recycling? These and many other questions are being debated by a broad network of solid waste regulators, electronic

manufacturers, retailers, resellers, and recyclers. Most everyone agrees that recycling and reuse of these resource rich electronic products is desirable and essential to protecting the environment, saving  
(continued on page 7)



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# Non-friable Asbestos Disposal

by Sam Sunderraj, Bureau of Waste Management

Per Kansas statute, construction and demolition waste which does not include friable asbestos waste may be placed in a permitted construction and demolition landfill – refer to K.S.A.65-3402(u) and (v). If the waste includes friable asbestos containing material, it must be approved as a special waste per K.A.R. 28-29-109, at which time it must be disposed in a municipal solid waste landfill.

Non-friable asbestos containing material is material that contains more than one percent asbestos that when dry cannot be crumbled, pulverized or reduced to powder by hand pressure. Examples include floor tile, transite siding and old asphaltic roofing material.

Therefore, for non-friable asbestos containing material to be acceptable for disposal at a construction demolition landfill, all of the following should be ensured:

1. No special waste disposal authorization (SWDA) should be requested from KDHE.
2. The material should be handled so it remains non-friable as follows:
  - a. During demolition – this may require manual removal without any sanding, abrading or grinding and breakage should be minimized by removing nails and screws securing the material
  - b. During transportation – the waste material will need to be loaded with care, transported properly, and bagged and/or securely covered
  - c. During disposal - the waste will need to be handled with care including covering of the material with a protective layer at the landfill prior to compaction.

It is important that landfills consider the above information and clearly identify the procedure to be followed for handling non-friable asbestos in the facility operation plan – refer to K.A.R.28-29-325(a)(3)(H).



## New Green Team Making a Difference

by Kris Hicks, Bureau of Waste Management

A “Practice what we Preach” environmental stewardship initiative was launched in state agencies last year with the direct involvement of Bureau of Waste Management. The primary tool for change has been the creation of employee “green teams.” The first teams were formed December 2005 in the Statehouse, Landon and Curtis State Office Buildings (SOBs) in the downtown Topeka Capitol Complex. With the help of staff from the Governor’s Recycling Taskforce, the teams have worked closely with the Division of Facilities Management, Division of Purchasing, *Health Quest* and Shawnee County Recycling to provide more opportunities for recycling, waste reduction, and improved environmental procurement practices. As the Green Team program is expanded throughout the Capitol Complex and other state operations, it is expected that there will be increased environmental benefits and energy savings.



Some of the initial improvements and benefits include:

- The Statehouse paper recycling was reinstated including increased collection routes, newspaper recycling receptacles added on each floor, and recycling bins placed in each of the Legislative Committee meeting rooms.
- Statehouse signs were posted on the wall behind receptacles to encourage recycling. Previously, signs on the collection bins had been regularly lost or damaged during collection.
- The State Library expanded and re-established a recycling program for books, catalogs, and magazines.
- Architects involved in the Statehouse Capitol renovation and future Docking SOB retrofit were encouraged to incorporate Green Building and waste reduction opportunities into future efforts.
- Housekeeping services at Landon SOB started to pick up cardboard from the hallway near a freight elevator on each floor. Employees no longer have to take it to the loading dock area behind the building.
- Several volunteers in the Curtis building already collect and transport the building’s recyclables, including paper, cans, and bottles to a consolidation point in the basement.

(continued on page 6)



# KDHE May Reintroduce Landfill Siting Bill in 2007

by Bill Bider, Director, Bureau of Waste Management

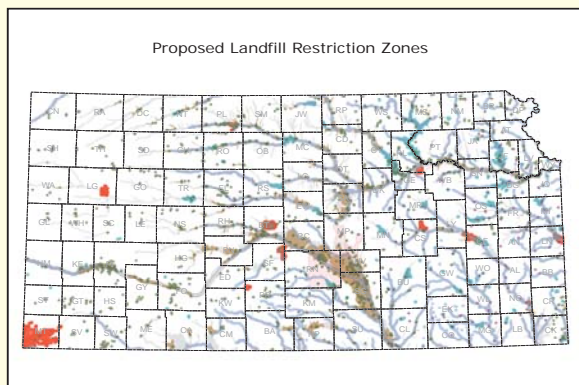
KDHE introduced a bill (Senate Bill 467) in the Kansas Legislature in 2006 to establish new landfill siting restrictions primarily to provide a higher degree of protection of valuable water resources. A hearing was held, support was mixed, and no action was taken by the Senate Natural Resources Committee. The bill died in committee.

KDHE continues to believe that existing state law does not adequately consider all relevant factors when it comes to placing restrictions on landfill development. For example, there is no consideration of proximity to public water supply wells, lakes, most streams or rivers, or wildlife areas. Therefore,

the department may again introduce a bill that would help ensure that landfills are not sited and expanded in ways that present unacceptable risks to sensitive or valuable waters of the state.

The details of a new bill have not been fully determined at this time. Because extensive feedback was received from a broad-based technical workgroup last year, that input for bill development will again be utilized to ensure that a balanced approach is proposed. Additional comments are being sought over the next few months as the bill language is finalized. We recommend that any

interested persons look at SB 467 available on the Kansas Legislature website because that bill will be our starting point in the coming year. That website is [www.kslegislature.org/legsrv-legisportal/index.do](http://www.kslegislature.org/legsrv-legisportal/index.do). If you have any comments or questions about that bill, please email Bill Bider at [wbider@kdhe.state.ks.us](mailto:wbider@kdhe.state.ks.us).



## Municipal Solid Waste Operators' and Solid Waste Haulers; Training Course

On November 1-2, 2006 a Transfer Station Operators' and Solid Waste Haulers' Training Course will be held in Olathe under the joint sponsorship of the Kansas Department of Health and Environment (KDHE) and the Kansas/SWANA "Sunflower Chapter." This training course, which is the first of its kind, will feature public and private sector experts, managers, supervisors, and operators from Kansas facilities and hauling firms as well as KDHE regulatory managers to share with attendees information on how to operate transfer station equipment and hauling vehicles safely and efficiently.

The day long course will include a field trip to the City of Olathe's Transfer Station to observe operations and a demonstration of automated solid waste collection vehicle operation. Watch for the training course flyer on this new joint program in early September

or visit the Web sites of the Bureau of Waste Management or the Kansas/SWANA "Sunflower Chapter" at or [www.swanaks.org](http://www.swanaks.org).



## Commissioner Ken Meier Remembered



Harvey County Commissioner Ken Meier passed away on June 28, 2006 at the age of 84. We, in the Bureau of Waste Management, have known Ken since the early 1990s shortly after he took office, because of his strong interest in solid waste management. Ken challenged his community and state officials to think "outside the box" when it came to waste management methods. He was dissatisfied with the traditional waste disposal method which was simply to bury everything in a landfill. He enthusiastically promoted recycling and composting and most recently he was looking for ways to recover energy from solid waste. Ken was instrumental in helping pass state legislation that authorized KDHE to award grants for waste reduction projects, including innovative projects to recover material or energy from waste streams. Ken Meier attended nearly every Recycling and Composting WORKS! Conference sponsored by the Bureau of Waste Management beginning in 1995. He was given a special award at the WORKS! Conference held in his county in 2004 for his lifelong contributions to waste management. We will miss Ken's dedication to improve waste management in Kansas and his courage to suggest and implement progressive waste reduction programs in his county.

# Litter Control at MSW Landfills

by Rebecca Wenner, Bureau of Waste Management

Litter control is an ongoing challenge for most Kansas landfills. What can be worse than a 35 mile per hour gusty day and load after load of trash with plastic bags? A compliance inspection by KDHE that afternoon of course!

KDHE inspectors don't actually wait until the windiest day of the year to inspect your facility, but we also don't wait for ideal conditions. Our inspections are conducted at random and we assess compliance based on the conditions of the inspection day. The Kansas Administrative Regulations (K.A.R.) 28-29-108(r)(7) states "The owner or operator shall patrol the facility to check for litter accumulation and take all necessary steps to minimize blowing litter, including the use of screens. All litter shall be collected and placed in the fill or in a secure, covered container for later disposal." In 2002 KDHE established the policy "Flexibility for Complying with Litter and Run-On/Runoff Controls Regulatory and Permit Requirements at Municipal Solid Waste Landfills" to provide flexibility during adverse weather conditions. This, and all other Bureau of Waste Management policies, is available on our Web site at [www.kdheks.gov/waste/bwm\\_policies.html](http://www.kdheks.gov/waste/bwm_policies.html).

The best way to control litter is to prevent it. So, while the policy allows for some flexibility, all landfills are required to have structures, policies, and controls in place to control litter. These controls can include litter screens and fences, working in alternate low areas during high wind conditions, or even shutting down temporarily. Other creative approaches are also available but as always, check with your KDHE permit engineer as some approaches may require approval from KDHE or modification of your operating plan and/or design plans.

When even your best controls fail, (and they will) then you are responsible for picking up the litter. Many landfills use vacuums, pick litter by hand, or a combination of both. Most collection methods are acceptable, but are they adequate under the KDHE policy? What is an adequate number of workers? What KDHE considers adequate will depend on the size of your landfill, the amount of litter, how far the litter has spread, and the recent weather conditions (size of storm, speed of wind, time elapsed since severe weather). Typically if you are actively collecting the litter at the time of the inspection, no litter has migrated off-site, and there are active controls in place to prevent additional litter, then there will not be a violation. Even though you may have an extensive buffer zone (distance from your open face to your property boundary), if there is a lot of litter in the buffer zone there may still be a litter violation. Litter must be controlled throughout your property to prevent it from entering water systems and from migrating off-site. You should always focus first on any litter that has migrated off-site and any litter that has entered water systems or is in danger of entering a water system. If your litter problem is extensive, then you may need to get additional help from outside sources. This additional help may include prison labor, temporary workers, other county employees, additional landfill staff not normally assigned to litter duty, etc.

Preventing litter is the first step, and actively collecting remaining litter is the key to staying in compliance.



## Measuring Waste Reduction in Kansas

(continued from page 1)

analyzed to determine if a historical trend can be developed. Some local landfill rates will also be calculated and shared in the near future.

KDHE is in the process of formulating an appropriate statewide goal for reducing the per capita landfill rate. We are presently thinking a one percent per year reduction seems appropriate over the next five years. Let us know your opinion on this draft goal.

KDHE intends to encourage counties and regional planning authorities to estimate their own local MSW landfilling rates and to set local goals in updated solid waste plans. We will help local governments to perform these calculations. We also intend to require updated plans to more fully comply with existing state law regarding the establishment of schedules to implement waste reduction practices.



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[www.kdheks.gov/waste](http://www.kdheks.gov/waste)

[www.getcaughtrecycling.org](http://www.getcaughtrecycling.org) [www.kansasdontspoilit.com](http://www.kansasdontspoilit.com)

## SFY 2007 GRANT INFORMATION

### Recycling and Composting Grants

The application process for Round 15 of KDHE's recycling and composting grants will begin in August 2006 with the release of new grant guidelines. The application deadline will be in the fall with awards announced in the winter of 2007.

### Waste Tire Recycling Grants

Guidelines for an expanded waste tire grant program are currently under development and scheduled for release this summer. Applicants will be eligible for traditional grants to establish programs to recycle waste tires into new products, including tire derived fuel. Financial assistance will also be available to local governments which purchase products made from recycled tires that provide safe playground cover, in 2007.

For more information, check our website - [www.kdheks.gov/waste](http://www.kdheks.gov/waste)

## Get Caught

The BWM "Green Team" recently caught Big Jay and Baby Jay recycling in Kansas University's Memorial Stadium. Plans call for "catching" Willie Wildcat at KSU in the near future as well as Annabeth Surbaugh, Chairman of the Johnson County Board of County Commissioners.

Be sure to keep current with who has been caught by checking [www.GetCaughtRecycling.org](http://www.GetCaughtRecycling.org)



## Get to Know KDHE Solid Waste Staff

### Sam Sunderraj Chief, Solid Waste Landfills Unit



#### Position in KDHE/BWM:

Landfills permit engineer since 2001 and Chief of the Landfills Unit since 2006

#### Birthplace:

Chennai, India in 1954, raised in New Delhi, India

#### Professional/Academic:

Licensed Professional Engineer. Bachelor's and Master's degrees in civil engineering.

#### Life in Kansas:

Traveled west of the Missouri river for the first time in my life in 1983. In Kansas worked for Bechtel since 1983, and have worked for KDOT, KDA and KDHE since 1984.

#### Family:

Married Audrey in January 1981.

#### Favorite pastime activities:

Taking walks, hiking and snowshoeing with Audrey and our dogs at our home in Stull, all over the USA and Canada. Also yard work and our building project.

#### Favorite food:

McDonald's hamburgers and fries, sitting on our front porch.

#### Person who influenced your life significantly:

Audrey, who sees possibilities when I don't and strengthens me when I am tempted to give up.

#### Book you would recommend:

Next to the Bible, the book entitled "Every Knee Shall Bow" by Jess Walters. A reporter's recreation of the Ruby Ridge tragedy.

#### Favorite vacation spot:

Banff National Park, British Columbia, Canada.



# Small Arid Landfill Operational Evaluation Project Wraps Up

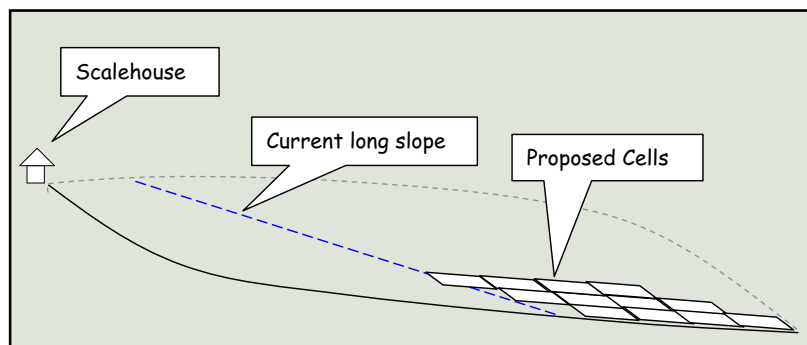
by Dennis Degner, Bureau of Waste Management

Last winter, nationally recognized landfill expert Neal Bolton conducted operational evaluations of 28 small arid landfills in Western Kansas. The program was administered by the Bureau of Waste Management (BWM) and funded by a U.S. Department of Agriculture rural development grant. Small arid landfills (SALs) are facilities that receive on average less than 20 tons of municipal solid waste daily and are located in areas receiving less than 25 inches of average annual rainfall.

Bolton presented his findings at the BWM landfill operator training last February and through individual reports to each participating SAL. Mr. Bolton sent final reports to all facilities late last month and early this month. A key conclusion common to numerous facilities was the consumption of landfill airspace due to excessive use of soil. "I'm convinced this is the most serious issue facing small arid landfills. We found that soil represented an average of 50 percent of the airspace consumed at these landfills. A few of the facilities are in crisis because of the overuse of soil," Bolton said. A related issue was a lack of planning in selecting new landfill cell and soil borrow locations.

Through the project, Bolton identified actions to address these issues. First, he recommended every SAL accurately track soil use for one to two months and review the results with their consulting engineer and the Bureau of Waste Management. Then, Bolton suggested a 3 to 5 year plan so SAL operators know where they're going and how to get there with respect to soil use and cell site selection.

Bureau staff will use the final comprehensive study report as a guide to work with SAL operators and local decision makers to help them implement these recommendations. By following Mr. Bolton's advice, counties and selected cities will be able to continue to conserve limited resources and improve the operational efficiency and effectiveness of their western Kansas SALs.



## Green Teams *(continued from page 2)*

All of these improvements generated a \$5,000 swing in disposal costs and recycling revenues in the first quarter of 2006 for just a handful of state buildings. Over this period, 43 tons of paper have been recycled saving more than 4,000 trees and reducing the energy and environment impacts associated with manufacturing paper from wood.

The Green Teams have also implemented an outreach and education campaign that targets state employees at every level. Currently, the teams are meeting monthly and have expressed interest in achieving the following goals:

- Improving the can and bottle recycling program in all buildings
- Obtaining uniform desk side recycling receptacles for office paper

- Expanding opportunities for book, newspaper, magazine, and chipboard recycling
- Implementing recycling in cafeterias and break rooms
- Promoting waste reduction practices such as duplexing

In addition to expanding the Green Teams to all state government next fall and winter, the Bureau of Waste Management hopes to develop and disseminate local government and business versions of the Green Team concept over the next year. To get your own Green Team started, contact Kris Hicks or Meranda Reifschneider at KDHE. Call (800) 282-9790 or email [khicks@kdhe.state.ks.us](mailto:khicks@kdhe.state.ks.us) or go to [www.getcaughtrecycling.org](http://www.getcaughtrecycling.org)

## Three Smallest Municipal Solid Waste Landfills by Tonnage (as reported in CY 2005)

Wichita County #251  
- 860 tons reported

Logan County #125  
- 908 tons reported

Greeley County #253  
- 1,185 tons reported



## Permitted Solid Waste Facility Types by Ownership

Permit Type	Ownership Type			
	City	County	Private	State/Federal
Composting	62	35	22	4
Construction/Demolition Landfill	13	58	32	4
Household Hazardous Waste	3	48	--	2
Industrial Landfill	7	4	30	2
MSW Exempt	2	31	--	--
MSW Subtitle D	2	8	9	--
Tire Monofill	3	10	10	--
Transfer Station	4	48	11	--
Other	2	--	74	3

### E-Waste Update

(continued from page 1)

landfill space, and conserving natural resources, but there is still little agreement as to the best way to accomplish this goal.

KDHE hired a summer intern in 2006 to visit a variety of e-waste collectors and processors to assess the Kansas market and update the KDHE e-waste handler list. He reported that there is a broad range of collectors, but still no facilities in Kansas that would qualify as a "solid waste processor" because none are using mechanical or chemical methods to separate material components. The infrastructure to manage e-waste is slowly but surely growing in Kansas, but it will probably not fully address all of the needs in rural areas without new laws or regulations.

More than half of the states are now actively engaged in studying, reviewing, considering legislation or working on joint model legislation to deal with electronic wastes. Nationally, the retailers have recently become more proactive in pushing for solutions while some of the major manufacturers are responding to the growing frustration and pressure from



multiple states considering their own regulations and fees. After more than a decade of discussion, there is still movement in many directions. Apple, Hewlett-Packard, Office Depot, Best Buy, the Rechargeable Battery Recycling Corporation and a host of others have expanded and redirected their recycling programs. Dell just announced in July a major recycling initiative where they will recycle any computer free of charge when you buy one of theirs. They plan on going worldwide with this offer this fall. Dell is banking on the idea that many of their customers will like the turnkey service they are offering to garner a greater market share.

So, stay tuned. The policy arena across the country and around the world is heating up while Kansas will probably just continue to monitor what happens here and around the nation. In the meantime, you can help stimulate e-waste recycling by purchasing from companies that provide recycling services or take your unwanted e-waste to an in-state business that reuses and recycles these products.

**If you're not Recycling ... get the heck out of Dodge!**  
**You can make a difference**

Kansas Department of Health and Environment  
 Bureau of Waste Management

**Get Caught Recycling!**

Miss Kitty, The Marshal, and The Longbranch Saloon Gang  
 Dodge City, Kansas

[www.getcaughtrecycling.org](http://www.getcaughtrecycling.org)

Reduce - Reuse - Recycle

**Get Caught**   
[getcaughtrecycling.org](http://getcaughtrecycling.org)



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## Calendar Items

September 12, 2006	<i>"Get Caught Recycling Day"</i> at the Kansas State Fair (Hutchinson)
October 7-10, 2006	League of Kansas Municipalities Annual Conference (Topeka)
October 27, 2006	Kansas Landfill Association Meeting (location to be determined)
November 1-2, 2006	KDHE/SWANA Municipal Solid Waste Transfer Station Operators & Solid Waste Haulers Training Course (Olathe)
November 19-21, 2006	Kansas Association of Counties Annual Conference (Topeka)



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